

# A less known topographic survey: a 1: 50 000 Scale Military Survey of Hungary (1940–1944)

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**Abstract.** The 1: 50 000 scale Military Survey is one of the less known and researched surveys of Hungary. The survey was carried out during WWII, so due to the political changes (the first and second Vienna Awards) of that time the mapped area included also parts of the present area of Romania, Slovakia and Serbia. In 1940, Hungary introduced a new scale in its topographic mapping, the 1: 50 000, to replace both the former 1: 25 000 and 1: 75 000 scale maps. The original idea was to publish the new sheets (relief representation with contour lines) in 10–15 years, but due to the WWII the whole survey was carried out till 1944 (the WWII affected Hungarian territories only from autumn 1944).

The lack of time caused the mappers to omit the conversion of Lehmann hachures into contour lines on most of the sheets.

The 1: 50 000 survey was theoretically based on the 3rd Military Survey of Austria-Hungary. Altogether 403 sheets were published. The overall result cannot be a homogenous set of sheets, but the mapmakers tried to do their best. This was the last survey of Hungary where the relief depiction was a little bit artistic, but the engineering style became more and more dominant and for both military and civil topographic mapping the use of contour lines became the only method for the relief description.

There were five different representations:

- Photographically reduced size sheets based on the 1:25 000 scale survey (1927–1940). Colour offset printed with contour lines.
- Photographically enlarged size sheets based on the 1:75 000 scale survey (1927–1940). Most of the sheets were colour offset printed with contour lines.

- Regained territories: photographically reduced size sheets based on the 1:25 000 scale maps of the Third Military Survey updated by using photogrammetry (can be treated as newly surveyed sheets).
- Southern Areas (Voivodina area): Reproduction of the 1:50 000 sheets originally published by the Yugoslavian Military Geographic Institute (partly updated: colour offset printed with contour lines).
- Most of the sheets were published as a photographically enlarged size sheets based on the 1:75 000 scale map sheets of the Third Military Survey. It was mostly a two-colour offset print: black and green for the forested areas (only approximate position). Relief representation is remained Lehmann hachures.

After the WWII (1948–1950) the sheets were republished (for the recent area of Hungary only), practically it was a reprint with the representation of the new borders.

Although these sheets were used only for limited period as the first Soviet style Gauss–Krüger military survey was come off between 1950–1952, but this topographic survey is part of the Hungarian cartographic heritage demonstrating that cartographers were managing their job even in special circumstances.

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